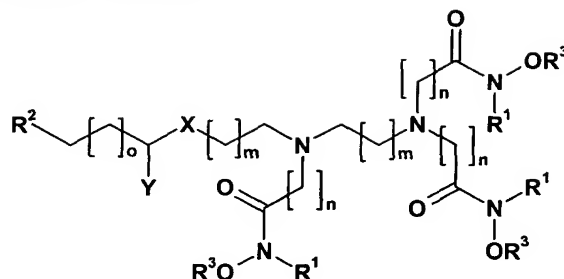


**What is claimed:**

1. A compound having the formula:



where:

$n$ ,  $m$  and  $o$  are, independently, an integer from 1 to about 4;

$X$  is  $\text{CH}_2$ , nitrogen ( $\text{N}(\text{R}^4)$ ), oxygen or sulfur;

$Y$  is hydrogen, hydroxyl,  $=\text{O}$  (carbonyl),  $\text{N}(\text{R}^4)(\text{R}^5)$ , or  $=\text{S}$ ;

$\text{R}^1$  is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;

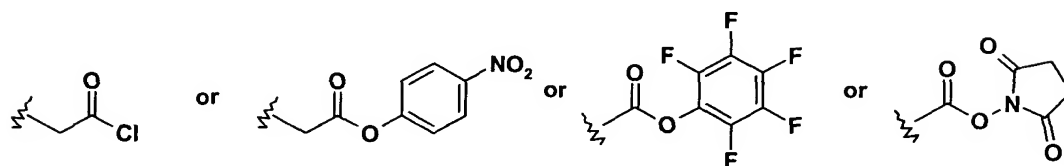
$\text{R}^2$  is an active group such as an activated ester, a carboxylic acid, an alkyl isothiocyanate, an aromatic isothiocyanate or a leaving group;

$\text{R}^3$  is hydrogen or a protective group;

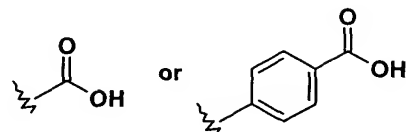
$\text{R}^4$  is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;

$\text{R}^5$  is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;

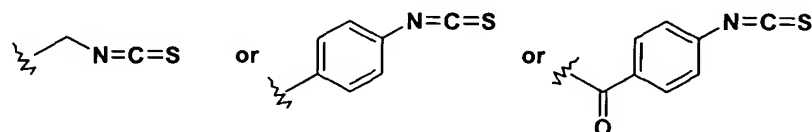
2. The compound of claim 1 wherein the activated ester is:



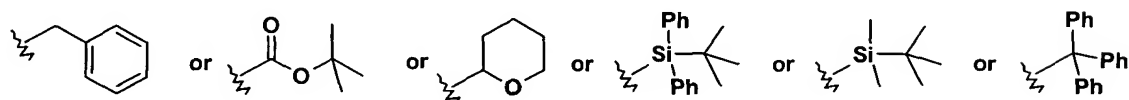
3. The compound of claim 1 wherein the carboxylic acid group is:



4. The compound of claim 1 wherein the isothiocyanato group is:



5. The compound of claim 1 wherein  $R^3$  is hydrogen or a protective group that is:



6. The compound of claim 1 wherein the protective group is *tert*-butoxycarbonyl or benzyloxycarbonyl.

7. The compound of claim 1 wherein  $n$  is equal to 1 or 2 and  $m$  is equal to 1 or 2.

8. The compound of claim 1 wherein:

$n$  or  $m$  or  $o$  is 1 or 2;

$X$  is nitrogen ( $N(R^4)$ ) or oxygen;

$Y$  is hydrogen or  $=O$  (carbonyl);

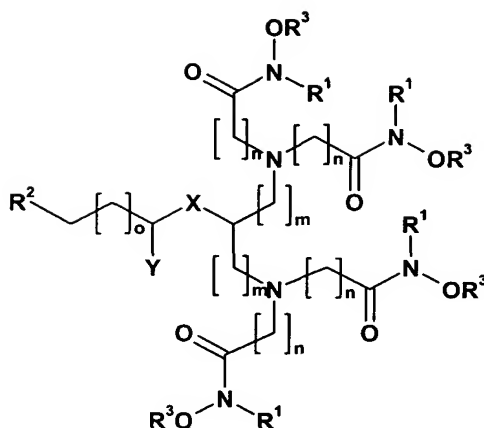
$R^1$  is hydrogen or methyl;

$R^2$  is an activated ester such as *p*-nitrophenyl ester;

$R^3$  is hydrogen or *tert*-butyldiphenylsilyl;

$R^4$  is methyl, ethyl, propyl or butyl

9. A compound having the formula:



where:

n, m and o are, independently, an integer from 1 to about 4;

X is CH<sub>2</sub>, nitrogen (N(R<sup>4</sup>)), oxygen or sulfur;

Y is hydrogen, -OH (hydroxyl), =O (carbonyl), N(R<sup>4</sup>)(R<sup>5</sup>), or =S;

R<sup>1</sup> is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;

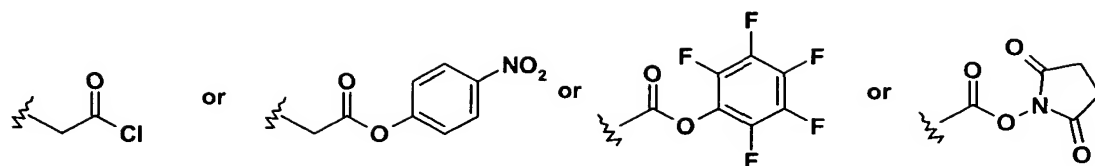
R<sup>2</sup> is an active group such as an activated ester, a carboxylic acid, an alkyl isothiocyanate, an aromatic isothiocyanate or a leaving group;

R<sup>3</sup> is hydrogen or a protective group;

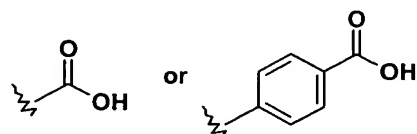
**R<sup>4</sup> is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;**

R<sup>5</sup> is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;

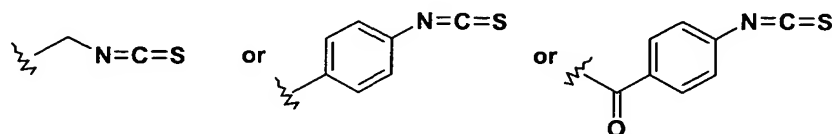
10. The compound of claim 9 wherein the activated ester:



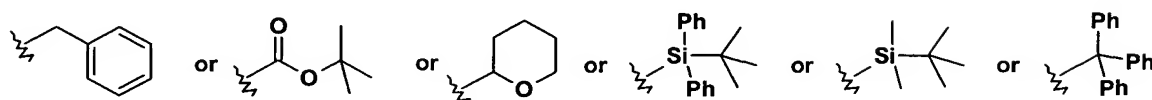
11. The compound of claim 9 wherein the carboxylic acid group:



12. The compound of claim 9 wherein the isothiocyanato group is:



13. The compound of claim 9 wherein R<sup>3</sup> is hydrogen or a protective:



14. The compound of claim 9, wherein the protecting group is tert-butoxycarbonyl or benzyloxycarbonyl.

15. The compound of claim 9 wherein:

n or m or o is 1 or 2;

X is nitrogen (N(R<sup>4</sup>)) or oxygen;

Y is hydrogen or =O (carbonyl);

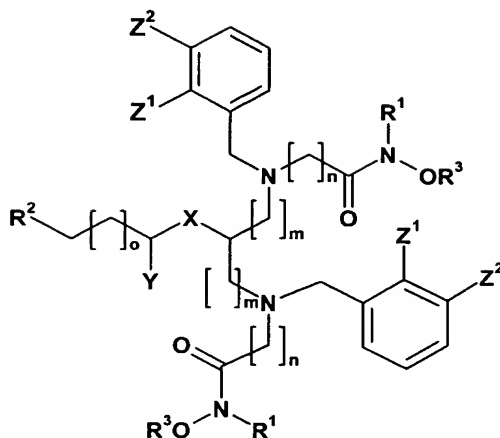
R<sup>1</sup> is hydrogen or methyl;

R<sup>2</sup> is an activated ester such as *p*-nitrophenyl ester;

R<sup>3</sup> is hydrogen or *tert*-butyldiphenylsilyl;

R<sup>4</sup> is methyl, ethyl, propyl or butyl;

16. A compound having the formula:



where n, m and o are, independently, an integer from 1 to about 4;

X is CH<sub>2</sub>, nitrogen (N(R<sup>4</sup>)), oxygen or sulfur;

Y is hydrogen, -OH (hydroxyl), =O (carbonyl), N(R<sup>4</sup>)(R<sup>5</sup>), or =S;

R<sup>1</sup> is hydrogen, alkyl having 1 to 4 carbon atoms, or a protective group;

R<sup>2</sup> is an active group such as an activated ester, a carboxylic acid, or a leaving group;

R<sup>3</sup> is hydrogen or a protective group;

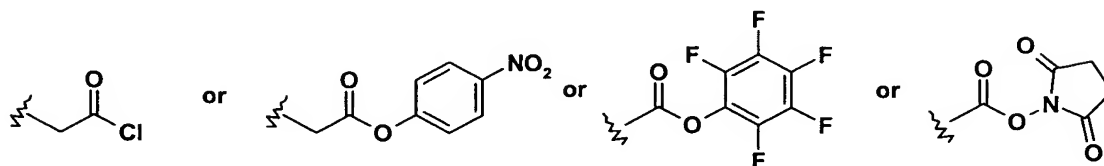
R<sup>4</sup> is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;

R<sup>5</sup> is hydrogen, alkyl having 1 to 5 carbon atoms, or a protective group;

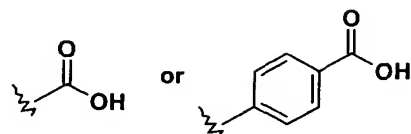
Z<sup>1</sup> is hydrogen, nitrogen, oxygen, or sulfur;

Z<sup>2</sup> is hydrogen, nitrogen, oxygen, or sulfur.

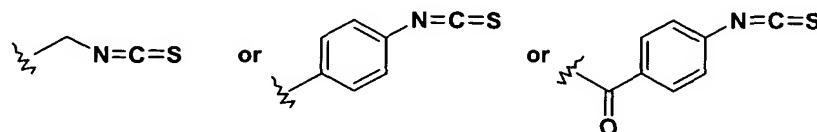
17. The compound of claim 16 wherein the activated ester is selected from the group comprising:



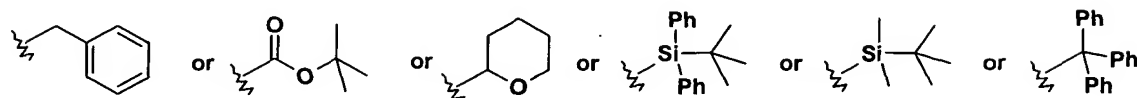
18. The compound of claim 16 wherein the carboxylic acid group is:



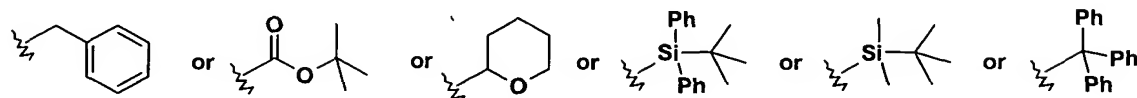
19. The compound of claim 16 wherein the isothiocyanato group is:



20. The compound of claim 16 wherein  $R^3$  is hydrogen or a suitable protective group:



21. The compound of claim 16 wherein the protective group is *tert*-butoxycarbonyl or benzyloxycarbonyl.



22. The compound of claim 16 wherein:

$n$  or  $m$  or  $o$  is 1 or 2;

$X$  is nitrogen ( $N(R^4)$ ) or oxygen;

$Y$  is hydrogen or  $=O$  (carbonyl);

$R^1$  is hydrogen or methyl;

$R^2$  is an activated ester such as *p*-nitrophenyl ester;

$R^3$  is hydrogen or *tert*-butyldiphenylsilyl

$R^4$  is methyl, ethyl, propyl or butyl;

$Z^1$  is oxygen (phenol);

$Z^2$  is hydrogen or oxygen (phenol);

23. A pharmaceutical composition comprising a compound according to claim 1 in free or in pharmaceutically acceptable salt form and one or more pharmaceutically acceptable carriers or diluents.
24. A pharmaceutical composition comprising a compound according to claim 9 in free or in pharmaceutically acceptable salt form and one or more pharmaceutically acceptable carriers or diluents.
25. A pharmaceutical composition comprising a compound according to claim 16 in free or in pharmaceutically acceptable salt form and one or more pharmaceutically acceptable carriers or diluents.
26. A method comprising administering to an animal a compound of claim 1 complexed with a radionuclide.
27. The method of claim 26 further comprising detecting said radionuclide in said animal.
28. A method comprising administering to an animal a compound of claim 9 complexed with a radionuclide.
29. A method comprising administering to an animal a compound of claim 16 complexed with a radionuclide.
30. A method comprising the steps of identifying an animal suspected of having a disease characterized by the presence of tumor cells and administering to said animal a compound according to claim 1 complexed with a radionuclide.
31. The method of claim 30 further comprising the step of detecting said

radionuclide in said animal.

32. A method comprising the steps of identifying an animal suspected of having a disease characterized by the presence of tumor cells and administering to said animal a compound according to claim 9 complexed with a radionuclide.
33. A method comprising the steps of identifying an animal suspected of having a disease characterized by the presence of tumor cells and administering to said animal a compound according to claim 16 complexed with a radionuclide.